Superposition of waves.

> Date 10/04/24 ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Superposition of waves → For all type of wave
Principle of superposition - According to huygheons, If two or more independent waves are propagated through a medium or space, all at the same time, the resultant physical quantity at any point is the vector some of the quantites due to each individual wave.

$$\psi = \psi_1 + \psi_2 + \psi_3 + \dots$$

Thus in the case of one dimensional or plane waves, the resultant displacement at any point is the linear sum of the displacements due to the individual waves.

or, $$y = y_1 + y_2 + y_3 + \dots$$

This means, the or more wave can traverse the same medium independently of one another.